PROJECT DEVELOPMENT PHASE

PROJECT DEVELOPMENT – DELIVERY OF SPRINT-1

DATE	08- NOVEMBER-2022
TEAM ID	PNT2022TMID00911
PROJECT NAME	REAL-TIME COMMUNICATION SYSTEM POWERED BY AI
	FOR SPECIALLY ABLED
MAXIMUM	
MARKS	

IMPORTING NECESSARY LIBRARIES:-

```
In [1]: import cv2
import pytesseract
import os
from PIL import image
import sys
```

READING IMAGE WITH DATA FILES:-

```
In [ ]: def get_string(img_path):
    #read image with opencv
    img=cv2.imread(img_path)
```

REMOVING NOISE FROM DATASET:-

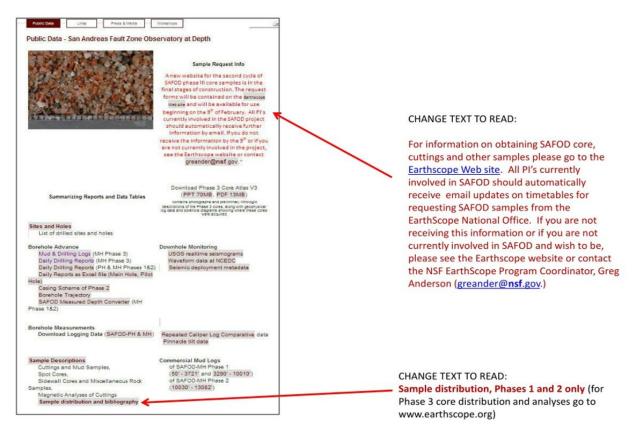
```
In []: #convert to gray
   img=cv2.cvtcolor(img,cv2.COLOR_BGR2GRAY)
   #apply dilation & erosion to remove some noise
   kernel=np.ones((1,1),np.unit8)
   img=cv2.dilate(img,kernel,iterations=1)
   img=cv2.erode(image,kernel,iterations=1)
```

RECOGNISING THE DATASET & CHANGING TEXT TO

READ:-

```
In []: #Write the image after apply opency to do some...
    cv2.imwrite("thres.png",img)
    #recognize text with tesseract for python
    result=pytesseract.image_to_string(image.open("thres.png"))
    os.remove("thres.png")

return result
```



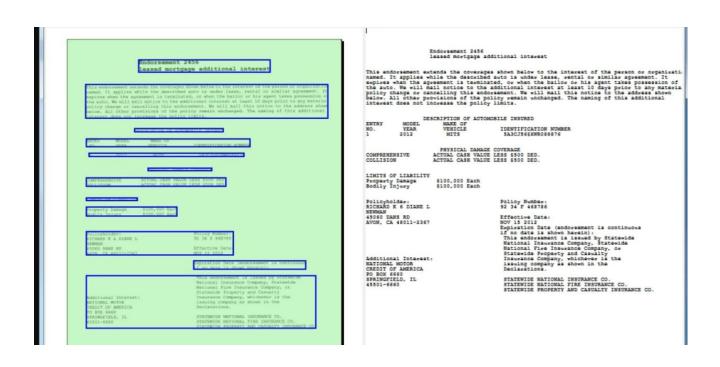
DISPLAY IMAGES FROM DATASET:-

```
In []: if_name_=='_main_':
    from sys import argv

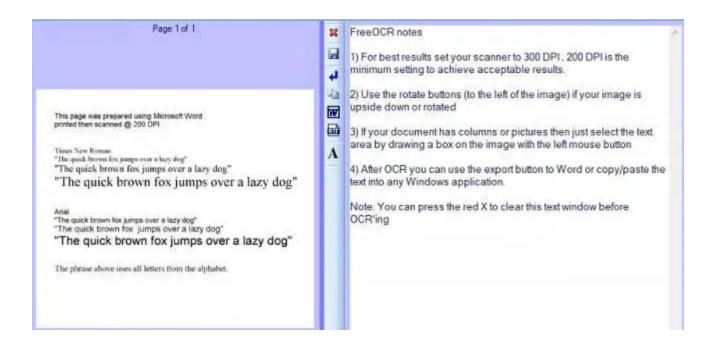
if len(argv)<2:
        print("usage python image-to-text.py relative-filepath")
    else:
        print('---start recognize text from image---')
        for i in range(1,len(argv)):
              print(argv[i])
              print(get_string(argv[i]))
                   print()
    print()|
    print('-----Done-----')</pre>
```

SAMPLE IMAGES:-

Sign_img=cv2.imread(train_data_path+'0/0_234.jpeg')
Display(Text_img,'a')



Sign_img=cv2.imread(train_data_path+'0/0_235.jpeg')
Display(Text_img,'b')



Sign_img=cv2.imread(train_data_path+'0/0_236.jpeg')
Display(Text_img,'c')

